

ABSTRACT OF THE DISCLOSURE

A vascular stent having one or more channels in the outer surface. The channel(s) provide increased flexibility, enhanced perfusion, increased chronic positional stability, and convenient dispensing of a medication. Preferably the stent is machined into a mesh-like pattern and the channel(s) are machined into the stent elements of the pattern. The channels may be oriented in a variety of ways. Parallel orientation tends to provide greater enhancement of perfusion whereas perpendicular orientation provides differential flexibility. For greater control of differential flexibility, the channel may be further machined in the stent element, producing a regain of greater flexibility.